JEFFERSON COUNTY BOARD OF HEALTH

AIR POLLUTION CONTROL RULES AND REGULATIONS

Revised November 10, 2010

Air Pollution Control Rules and Regulations are printed on recycle paper

Methods, 1, 2, and 25A of 40 CFR 60 with the following specifications: (Revised October 10, 1990).

(i) Field calibration of the flame ionization analyzer with propane standards, and

(ii) Laboratory determination of the ratio of the flame ionization analyzer response to a given part per million by volume concentration of propane to the response to the same parts per million concentration of the volatile organic compounds to be measured, and

(iii) Determination of the weight of volatile organic compounds vented to the atmosphere by:

(a) The multiplication of the ratio determined in Subparagraph 8.24.4(a)(1)(ii) by the measured concentration of volatile organic compound gas (as propane) as indicated by the flame ionization analyzer response output record, and

(b) The conversion of the parts per million by volume value calculated in 8.24.4(a)(1)(iii)(a) into a mass concentration value for the volatile organic compounds present, and

(c) Multiply the mass concentration value calculated in 8.24.4(a)(1)(iii)(b) by the exhaust flow rate determined by using EPA Reference Test Methods 1 and 2.

(2) Calculate, record, and report to the Health Officer the dry weight of articles dry cleaned.

(3) Repeat Subparagraphs 8.24.4(a)(1) and (2) for normal operating conditions that encompass at least 30 dryer loads, which total not less than 1,800 kg (3,968 lbs) dry weight, and represent a normal range of variations in fabrics, solvents, load weights, temperatures, flow rates, and process deviations.

(b) To determine compliance with Subparagraph 8.24.3(a)(2), the owner or operator shall verify that the flow rate of recovered solvent from the solvent recovery dryer at the termination of the recovery phase is no greater than 50 milliliters (1.7 oz) per minute. This one-time procedure shall be conducted for a duration of no less than two weeks during which no less than 50 percent of the dryer loads shall be monitored for their final recovered solvent flow rate. The suggested point for measuring the flow rate of recovered solvent is from the solvent-water separator. Near the end of the recovery cycle, the flow of recovered solvent should be diverted to a graduated cylinder. The cycle should continue until the minimum flow of solvent is 50 milliliters (1.7 oz) per minute. The type of articles cleaned and the total length of the cycle should then be recorded.

(c) To be in compliance with Subparagraph 8.24.3(b)(1) the owner or operator shall:

(1) Calculate, record, and report to the Health Officer the weight of volatile organic compounds contained in each of at least five 1.0 kilogram (2.2 lbs) samples of filtration waste material taken at intervals of at least 1 week by employing ASTM Method D322-80 (Standard Test Method for Gasoline Diluent in Used Gasoline Engine Oils by Distillation).

(2) Calculate, record, and report to the Health Officer the total dry weight of articles dry cleaned during the intervals between removal of filtration waste samples, as well as the total mass of filtration waste produced in the same period.

(3) Calculate, record, and report to the Health Officer the weight of volatile organic compounds contained in filtration waste material per 100 kilograms (220 lbs) dry weight of articles dry cleaned.

(d) Compliance with Paragraph 8.24.3(c) requires that each owner or operator make weekly inspections of washers, dryers, solvent filters, settling tanks, vacuum stills, and all containers and conveyors of petroleum solvent to identify perceptible volatile organic compound vapor or liquid leaks.

8.25 Reserved. (Revised October 10, 1990).

8.26 Leaks From Coke By-Product Recovery Plant Equipment.

8.26.1 Except as otherwise required by the context, terms used in this Part are defined in Part 1.3 or in this Section as follows:

(a) "Closed vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow indicating devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(b) "Coke by-product recovery plant" means any facility engaged in the separation and recovery of various fractions from coke oven gas, including tar, pitch, ammonium sulfate, naphthalene, and light oil.

(c) "Connector" means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of process equipment.

(d) "Conservation Vent" means a pressure-vacuum valve installed on a naphthalene separation unit cover that prevents the release of vapors during small changes in temperatures, barometric pressure, or liquid level.

(e) "Control Device" means an enclosed combustion device, vapor recovery system or flare.

(f) "Equipment" means each pump, valve, pressure relief valve, sampling connection, open-ended valve, and flange or connector in VOC service.

(g) "First attempt at repair" means taking rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices.

(h) "In gas service" means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions.

(i) "In light liquid service" means that the piece of equipment contains or contacts a process fluid that is a liquid at operating conditions, one or more components having a vapor pressure greater than 2.1 mmHg at 20 ^{o}C (0.04 psia at 68 ^{o}F), and the total concentration of the pure components, having a vapor pressure greater than 2.1 mmHg (0.04 psia at 68 ^{o}F) at 20 ^{o}C, is equal to or greater than 20 percent by weight.

(j) "In vacuum service" means that equipment is operating at an internal pressure which is at least 38 mmHg (0.73 psia) below ambient pressure.

(k) "In VOC service" means that the piece of equipment contains or contacts VOC.

(l) "Naphthalene Separation Unit" means the settling tank and associated equipment used in the recovery of naphthalene from the final cooler aqueous effluent.

(m) "Open-Ended Valve" means any valve, except pressure relief devices, having one side of the valve in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

(n) "Pressure release" means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

(o) "Quarter" means the following 3-month periods: January through March, April through June, July through September, and October through December.

(p) "Reference Method 21" means Reference Method 21 of Appendix A of 40 CFR 60. (Revised October 10, 1990).

(q) "Repaired" means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed.

8.26.2 The provisions of this Part shall apply to all equipment in VOC service in a Coke By-Product Recovery Plant.

8.26.3 General Requirements.

(a) Owners or operators of coke by-product recovery plants shall demonstrate compliance with the requirements of Sections 8.26.4 to 8.26.7. Compliance will be determined by review of

records and reports, and inspection using the methods and procedures specified in Reference Method 21.

(b) Equipment that is in vacuum service shall be controlled by means of a closed vent system, or determined to achieve emission limitation at least equivalent to the requirements of Sections 8.26.4 to 8.26.7.

(c) Each component subject to the requirements of Section 8.26.3 shall be marked with weatherproof tags that will be readily obvious to both plant personnel and the Health Officer, and have an identification number.

(d) Any component in VOC service that appears to be leaking on the basis of sight, smell, or sound, shall be repaired with an initial attempt as soon as possible and final repair within 15 calendar days.

8.26.4 Pumps in Light Liquid Service.

(a) Each pump in light liquid service shall be monitored each calendar quarter to detect leaks by the methods specified in Reference Method 21.

(b) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(c) If an instrument reading of 10,000 ppm or greater is measured, or if there are indications of liquids dripping from the pump seal, a leak is detected.

(d) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in Section 8.26.8.

8.26.5 Valves in Gas and Light Liquid Service.

(a) Each valve in gas and light liquid service shall be monitored each calendar quarter to detect leaks by the methods specified in Reference Method 21, except as provided in Paragraph 8.26.5(d).

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected.

(d) Valves in gas and light liquid service may be exempted from Section 8.26.5 provided:

(1) An owner or operator demonstrates that a valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) A valve has no external actuating mechanism in contact with the process fluid.

8.26.6 Pressure Relief Valves in Gas Service.

(a) Each pressure relief valve in gas service shall be monitored each calendar quarter to detect leaks by methods specified in Reference Method 21.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c) When a leak is detected, excluding overpressure releases, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.

8.26.7 Open Ended Valves.

(a) Each open-ended valve shall be equipped with a cap, blind flange, plug, or a second valve, except during operations requiring fluid flow through the open-ended valve.

(b) Each open ended valve equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) Open-ended valves which serve as a sampling connection shall be equipped with a closed vent system such that:

(1) Purged process fluid be returned to the process line with zero VOC emissions to atmosphere, or

(2) Collect and recycle the purged process fluid with zero VOC emissions to atmosphere.

8.26.8 Delay of Repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair is technically infeasible without process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if the owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device or collected and recycled with zero emissions to atmosphere.

8.26.9 Naphthalene Separation Unit Emissions.

(a) Each owner or operator of any open settling tank used in the separation of naphthalene from final cooler aqueous effluent shall enclose and seal the tank to contain VOC emissions. The cover may include the following items of equipment:

(1) A vent equipped with a water leg seal or a conservation vent; and

(2) An access hatch which is equipped with a gasket.

(b) The cover may be removed when required by process operations, but must be replaced at the completion of operations.

8.26.10 Recordkeeping Requirements.

(a) Owners or operators of coke by-product recovery plants shall maintain monitoring records for all components subject to the requirements of this Part. This log shall contain at a minimum the following data:

(1) The type of component,

(2) The location of the component,

(3) The identification number of the component,

(4) The date on which a leaking component is discovered, initial repair attempted, and the component is repaired,

(5) The date and instrument reading of the recheck monitoring after a leaking component is repaired,

(6) A record of the calibration of the monitoring instrument, and

(7) The identification of components awaiting repair according to Section 8.26.8.

(b) Copies of the monitoring log shall be retained by the owner or operator for a minimum of 2 years after the date on which the record was made or the report prepared.

(c) Copies of the monitoring log shall immediately be made available to the Health Officer or his representative upon verbal or written request, at any reasonable time.

8.26.11 Reporting Requirements. Owners or operators of coke by-product recovery plants shall submit reports for each calendar quarter to the Health Officer listing the following data:

(a) The total number of components inspected,

(b) The total number of components found leaking,

(c) The total number of components awaiting repair per delay of repair provisions of Section 8.26.8.

8.26.12 The Health Officer, upon written notice, may modify the monitoring, recordkeeping and reporting requirements.

8.27 Emissions from Coke By-Product Recovery Plant Coke Oven Gas Bleeder.

8.27.1 For the purpose of this Part, all terms not defined herein shall have the meaning given them in Section 8.26.1 or in Part 1.3, and for the following term the specific definition given shall apply:

"Coke Oven Gas Bleeder" means that piece of equipment which vents surplus coke oven gas (gas not consumed in the process or supplied to other sources) directly to the atmosphere.

8.27.2 Owners or operators of coke by-product recovery plants shall equip each coke oven gas bleeder with a closed vent system capable of capturing and transporting excess gas to a control device. All coke oven gas from the closed vent system shall be passed through the said control device which removes at least 95 percent of the VOC from such gas before it is discharged to the atmosphere.

8.27.3 Owners or operators of control device used to comply with Part 8.27 shall monitor these control devices to ensure that they are operated and maintained in conformance with their design specifications.

8.27.4 Closed vent systems shall be monitored to determine compliance with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, and, by visual inspections, quarterly and at other times requested by the Health Officer.

8.27.5 Control devices used to comply with the provisions of this Part shall be operated at all times when emissions may be vented to them from the closed vent systems.

8.28 Manufacture of Laminated Countertops.

8.28.1 Except as otherwise required by the context, terms used in this Part are defined in Part 1.3 or in this Section as follows:

(a) "Adhesive" means any substance that is capable of bonding surfaces together by attachment.

(b) "Adhesive Application System" means all operations and equipment which applies, conveys, and dries an adhesive, including, but not limited to, spray booths, flow coaters, flash off areas, air dryers, and ovens.

(c) "Elastomeric Adhesive" means any adhesive containing natural or synthetic rubber.

(d) "Flash-off Area" means the space between the application area and the oven.

(e) "Lamination of Countertops" means the bonding of a decorative material such as vinyl, plastic, or linoleum, to particle board, composition board, plywood, or other similar materials to manufacture a cabinet or countertop using an adhesive.

8.28.2 This Part shall apply to all facilities which have the potential to emit more than 90.7 Mg (100 tons) per year of VOCs from the manufacture of counter and cabinet tops by bonding decorative laminates to wood, particle board, composition board, or similar materials.

8.28.3 No owner or operator of a facility manufacturing laminated countertops subject to this Part may cause, allow, or permit the discharge into the atmosphere in excess of 0.06 kilogram of VOC per liter (0.5 lb/gal) of adhesive, excluding water, as delivered to the adhesive application system.

8.28.4 Compliance with the emission limit under this Part shall be demonstrated by one or more of the following methods: